



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,545	01/27/2005	Avraham Berger	82618	8526
20529	7590	05/29/2007		
NATH & ASSOCIATES 112 South West Street Alexandria, VA 22314			EXAMINER APANIUS, MICHAEL	
			ART UNIT 3736	PAPER NUMBER
			MAIL DATE 05/29/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/522,545

Applicant(s)

BERGER ET AL.

Examiner

Michael Apanius

Art Unit

3736

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 17-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/27/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 20050303 & 20070327.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicant's election without traverse of Group I (claims 1-13) in the reply filed on 3/7/2007 is acknowledged. The amendments to claims 1, 2 and 8; the cancellation of claims 13-16; and the addition of new claims 17-23 are acknowledged.

#### ***Specification***

2. The disclosure is objected to because of the following informality: at page 4, line 19, it appears that "vascoelastic" is misspelled. Appropriate correction is required.

#### ***Claim Objections***

3. Claims 3, 4 and 19-23 are objected to because of the following informalities:
  - a. At claim 3, last two lines, it appears that "on its topside facing away from the body part" should be --on the topside of the bio-filter pad--.
  - b. At claim 4, line 2, it appears that "on its topside" should be --on the topside of the bio-filter pad--.
  - c. At claim 19, lines 11-14, it appears that "intimate juxtaposing said underside, and hence said viscoelastic interior, against the body part so as to provide for physical amplification displacements" should be --intimate juxtaposing of said underside, and hence of said viscoelastic interior, against the body part so as to provide for physical amplification of displacements--.

Art Unit: 3736

- d. At claim 22, last two lines, it appears that "on its topside facing away from the body part" should be --on the topside of the bio-filter pad--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-12 and 17-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Amended claims 1 and 8 recite that the bio-filter pad has "a mechanical resonance frequency at an associated frequency of the natural frequency signature associated with the physiological action". New claim 19 recites that the bio-filter pad has "a mechanical resonance frequency which is a harmonic of the natural frequency signature associated with the physiological action". Although the original disclosure appears to support the bio-filter pad having a mechanical resonance frequency midway in the range of the natural frequency signature associated with the physiological action, the original disclosure does not appear to support that the mechanical resonance frequency is any value other than midway in the range of the natural frequency signature or is a harmonic of the natural

Art Unit: 3736

frequency signature associated with the physiological action. Applicant states that original claims 1 and 8 and the first two paragraphs under the "Detailed Description of Preferred Embodiments" provide support for new claims 19-23. However, these portions of the original disclosure do not appear to provide sufficient support for the mechanical resonance frequency being values other than midway in the range of the natural frequency signature as is presently claimed.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3-8, 10-12, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hale et al. (US 6,135,969).

8. Hale discloses a bio-filter pad (10) for use in the detection of an occurrence of a physiological action imparting a displacement to a body part at a natural frequency signature (see at least column 1, lines 5-10), the bio-filter pad comprising: a topside (topside of the bottom half of 26') and an underside (underside of the bottom half of 26') for respectively facing away from and toward the body part and a viscoelastic interior (see interior shown in figure 4), said bio-filter pad adapted for intimate juxtapositioning against the body part, and having a mechanical resonance frequency (column 5, lines 9-19) at an associated frequency of the frequency signature associated with the

Art Unit: 3736

physiological action. Applicant states, "The viscoelastic interior 23 may be constituted by a solid material, a gel-like material, a fluid material, or a combination thereof" (page 4, lines 22-24). The interior of Hale is clearly composed of solid materials. Although not required to meet the claim language, it is noted that the interior of Hale includes a pressure sensitive adhesive (24, column 3, lines 43-47) which is considered to be viscoelastic.

9. In regards to claim 8, Hale discloses the associated method steps for the bio-filter pad. Hale further discloses processing (column 5, lines 1-8) the electrical signals for detecting occurrences of the physiological action.

10. In regards to claims 3 and 11, the viscoelastic interior has concentric sections (see the various elements shown in figure 2) that are considered to focus mechanical energy imparted to the bio-filter pad due to a displacement of the body part lying thereunder towards a transducer (25) centrally located.

11. In regards to claim 4, a restraining member (32) on the topside removably intimately mechanically couples the transducer to the topside. The transducer can be removed when the casing halves (26') are separated.

12. In regards to claim 5, the restraining member slidably receives the transducer (see figure 3).

13. In regards to claims 6 and 12, the bio-filter pad is sized and shaped for conforming to an expectant mother's abdomen, and has a mechanical resonance frequency midway in the natural fetal activity frequency signature for fetal activity monitoring purposes (column 5, lines 9-19).

Art Unit: 3736

14. In regards to claim 7, the bio-filter pad is fully capable of being used only once.

15. In regards to claim 10, the transducer is slid under a restraining member (top half of 26').

16. In regards to claims 17 and 18, the associated frequency is midway in the range of the frequency signature associated with the physiological action (column 5, lines 16-19).

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 2, 9 are 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hale et al. (US 6,135,969) in view of Leonard (US 4,122,837).

19. Hale discloses a bio-filter pad and method as noted above. In regards to claim 19, the restraining member can be considered to be the top half of casing (26'). The resonant frequency of 80 Hz is considered to be a harmonic of a natural frequency of 20 Hz (column 5, lines 16-19). However, Hale does not appear to expressly disclose a peel-off protective liner for exposing an adhesive surface for removable intimate adhesion of at least a portion of said underside on the body part as set forth in claims 2, 9 and 19.

Art Unit: 3736

20. Leonard teaches using an adhesive with a peel-off protective liner for quickly and temporarily attaching a deformation detector to the body of a patient (column 4, lines 27-41).

21. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to have used an adhesive with a peel-off protective liner as taught by Leonard with the bio-filter pad of Hale in order to allow for easy, quick and temporary attachment of the bio-filter to the body of a patient.

### ***Conclusion***

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Orten (US 7,082,202) discloses a sound pick-up sensor that includes a viscoelastic contact and transfer body.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Apanius whose telephone number is (571) 272-5537. The examiner can normally be reached on Mon-Fri 8am-4:30pm.

24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for




Art Unit: 3736

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MA

  
MARK F. WINDENBURG  
PATENT EXAMINER  
TECHNOLOGY CENTER 3700